

ABSTRACT

Disclosed herein is an apparatus and method for scheduling packets using a credit based round robin in a high-speed communication network in which packets are transmitted to and received from a plurality of connections having respective speeds of service. The scheduling apparatus includes a packet pool for storing input packets; a token queue for storing tokens each having a connection identifier (ID) of an input packet stored in said packet pool, the round number (RN) of the connection, and a credit value (CV) for service; and a connection management unit for transmitting the input packets to said packet pool, reading the packets stored in said packet pool, generating the tokens each having a connection identifier (ID) of an input packet stored in said packet pool, the round number (RN) of the connection, and a credit value (CV) for service and transmitting them to said token queue, and servicing the packets of said packet pool designated by the token stored in said token queue.